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			EXAMINER	
			KANE, CORDELIA P	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,292

Applicant(s)

BRENTON ET AL.

Examiner

Cordelia Kane

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 8-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 8-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, filed November 26, 2007, with respect to the rejections of claims 1 – 4, 6, and 8 - 24 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims a second server in communication with the first server. It is unclear if this is the same server that is referred to in step 3 or a different server.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over He, in view of Dunn et al's US Patent 5,916,302 and Hrastar US Publication 2003/0219008 A1, and further in view of Kelly US Patent 6,678,826. Referring to claim 1, He discloses:

- b. A first server (security server) operable to:
 - i. Receive a request to communicate with one or more network elements (column 4, lines 9-11),
 - ii. Authenticate a user (column 4, lines 25-26),
 - iii. Facilitate a session with a second server (secure terminal server) that connects to a network element (column 14, lines 60-65),
 - iv. Establish a secure pathway over a communications network (column 5, lines 30-32),
 - v. Transmit data for monitoring system functions (column 5, line 50)
 - c. Authenticate a request to access remote network elements (column 15, lines 19-21) and to communicate operational status (column 5, line 53).
6. He does not explicitly disclose the configuration of the network for in-band and out-of-band access. However, Dunn discloses A first server in communication with the firewall, and a modem bank in communication with the first server, out-of-band access being defined by communications path between the user (88), and the remote network element (80) via said first network (114), firewall (115), server (93), modem bank (109) and PSTN (108) (Figure 11). Dunn also discloses the modem bank being connected to a plurality of modems (Figure 11, elements 109, 78 and 81).
7. Hrastar goes on to disclose the in-band access path defined by a user (135), the remote element, via the first network (160), firewall (145) and router (140) (Figures 1-2E).

8. He, Dunn and Hrastar are analogous art because they are from the, same field of network communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of He and Dunn and Hrastar before him or her, to modify the authentication system of He to include both in-band access of Hrastar and out-of-band access of Dunn. The suggestion/motivation for doing so would have been so that someone trying to access the element when the in-band access is down can still access the elements using out of band access (Kelly, 6,678,826 B1, column 5, lines 47-53).

9. Referring to claim 2, He teaches the second server operable to select a specific modem (column 15, lines 1-2).

10. Referring to claim 3, He teaches that the first server is able to log invalid login attempts (column 5, lines 49-50).

11. Referring to claim 4, He teaches that the first server is capable of allowing specific access to privileged users (column 8, lines 51-52).

12. Claims 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly, and further in view of Dunn and Hrastar. Referring to claim 6, Kelly teaches:

d. Requesting access from the user computing device out of band access to the second network device (router) via a modem, communicating from said first network device with the remote modem coupled to said second network element, and authenticating a request to access the remote modem (column 8, lines 45-49)

13. Kelly does not explicitly disclose the configuration of the network for in-band and out-of-band access. However, Dunn discloses A first server in communication with the firewall, and a modem bank in communication with the first server, out-of-band access being defined by communications path between the user (88), and the remote network element (80) via said first network (114), firewall (115), server (93), modem bank (109) and PSTN (108) (Figure 11). Dunn also discloses the modem bank being connected to a plurality of modems (Figure 11, elements 109, 78 and 81).

14. Hrastar goes on to disclose the in-band access path defined by a user (135), the remote element, via the first network (160), firewall (145) and router (140) (Figures 1-2E).

15. Kelly, Dunn and Hrastar are analogous art because they are from the, same field of endeavor network communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kelly and Dunn and Hrastar before him or her, to modify the authentication system of Kelly to include both in-band access of Hrastar and out-of-band access of Dunn. The suggestion/motivation for doing so would have been so that someone trying to access the element when the in-band access is down can still access the elements using out of band access (Kelly, 6,678,826 B1, column 5, lines 47-53).

16. Referring to claim 10, Kelly teaches encrypting communicated data to secure network connections (column 8, line 67 – column 9, lines 1-3).

17. Claims 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly in view of Dunn and Hrastar as applied to claims 6 and 10 above, and further in view of He. Referring to claim 8, Kelly in view of Dunn and Hrastar teaches the limitations of parent claim 7. It fails to teach the limitation of validating the number dialed to establish that the requesting modem is authorized to connect. In the specification it is explained this is so only the modem banks will be able to access the network elements. While validating the number is not expressly established in the prior art, He does teach that only the secure terminal server acts as a bridge between the network and the remote elements. It would have been obvious to modify Kelly in view of Dunn and Hrastar so that the actions that are performed individually at each node be centralized into individual servers, as taught by He.

18. Referring to claim 9, Kelly in view of Dunn and Hrastar and further in view of He teach the limitations of parent claim 8. Kelly goes on to teach using credentials for authentication (column 8, 29-34).

19. Claims 11 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over He, and further in view of Dunn. Referring to claim 11, He teaches:

e. Receiving a first request via an out-of-band process to establish a connection with a network element (column 4, lines 57-60).

f. Receiving a security identifier to authenticate the request (column 5, lines 8-9)

- g. Identifying a dial up number for accessing the remote modem is inherent from the servers ability to connect with the remote modem. If the server did not have the number to connect then it would not be able to connect.
 - h. Capturing information about the first request to a log file (column 5, lines 49-51).
 - i. Directing a server to identify which of the plurality of modems to connect with to access the requested network element (column 14, lines 60-61).
 - j. Authenticating a second request (column 14, line 64-column 15, line 1).
 - k. Authenticating a third request to access the network element (column 15, lines 1-3).
20. He does not explicitly disclose accessing the remote network element through a modem connected to a modem bank. However, Dunn discloses a modem bank connected to a modem that is connected to the remote element (Figure 11). He and Dunn are analogous art because they are from the same field of endeavor, network communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of He and Dunn before him or her, to modify the authentication system of He to include the modem and modem bank of Dunn. The suggestion/motivation for doing so would have been to have out-of-band access to the network elements when the network is down (Kelly, 6,678,826 B1, column 5, lines 47-53).
21. Referring to claim 12, He teaches establishing a communications pathway after exchanging packets (tickets) of information (column 14, lines 59-67).

22. Referring to claim 13, He teaches issuing a command to the network element to authenticate the access (column 15, lines 7-21).
23. Referring to claim 14, He teaches that the identifier is a security credential component (column 5, lines 8-9).
24. Referring to claim 15, He teaches
- l. Issuing a request from the user (column 14, line 59).
 - m. Receiving a telephone number for dialing is not specifically mentioned in the specification. But it is inherent that the number for dialing would be needed to connect to the specified element. He teaches connecting with the specified element (column 15, line 4-5).
 - n. Validating the telephone number against a predetermined list is not specifically taught. But it is taught that the element that user is attempting to access is checked against a predetermined list (column 5, lines 16-17). Since the element is a modem it would be inherent that this list would be phone numbers.
25. Referring to claim 16, He teaches capturing session information (column 5, lines 49 – 51).
26. Referring to claim 17, He teaches logging logon successes and failures (column 5, line 50).
27. Referring to claim 18, He teaches logging information as to the user identifier and time of attempt (column 5, lines 52-53).
28. Referring to claim 19, He teaches

- o. Sending a request to establish a connection with a remote modem (column 14, line 59).
 - p. Selecting a modem from the modem pool, and receiving a response from said server to establish a link with said pooled modem. This is taught in the ticket that is returned to the secure server. It is not only the response but it includes the server that is selected to connect to (column 14, lines 59-63).
 - q. Dialing a telephone number to said pooled modem to establish a link. It is inherent that this number is dialed because the server is able to establish a connection with the remote modem (column 15, lines 4-5).
29. Referring to claim 20, He teaches that authenticating the request includes:
- r. Receiving login identification information (column 14, 60-64).
 - s. Verifying the login information against a list of authorized users (column 5, lines 9-10).
 - t. Notifying the user with a status response (column 9, lines 32-33).
30. Referring to claim 21, He teaches that the user information is a username and password (column 14, lines 61-62).
31. Referring to claim 22, He teaches that the status response is an approval to access said remote modem (column 9, lines 32-33).
32. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly, and further in view of Dunn. Referring to claim 23, Kelly teaches:

- u. A server programmed to receive one or more requests from a user to access said remote device and authenticate that said one or more requests are submitted by an authorized user (column 8, lines 45-49).
 - v. Wherein said remote modem is coupled to said remote device (Figure 1, Elements 40 and 68)
33. Kelly does not explicitly disclose a modem bank or only accepting communications from a predetermined set of phone numbers. However, Dunn discloses:
- w. A modem bank communicatively coupled to said server and to a remote modem (Figure 11).
 - x. Wherein the remote modem is configured to only accept connections from a predetermined address or phone number (column 12, lines 49-50). There is only one connection line so it is a predetermined.
34. Kelly and Dunn are analogous art because they are from the same field of endeavor, network communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kelly and Dunn before him or her, to modify Kelly to include the modem bank of Dunn. The motivation for doing so would have been to convert signals from analog to digital (column 13, lines 44-45).
35. Referring to claim 24, Kelly teaches that the remote device cannot be accessed without authenticating said user (column 8, lines 49-50). The user must be authenticated before access is granted to the element.

36. Claims 25 and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over He in view of Dunn and Hrastar as applied to claim 1 above, and further in view of Craig et al's US Publication 2001/0024446 A1. He in view of Dunn and Hrastar discloses all the limitations of the parent claim. He in view of Dunn and Hrastar does not explicitly disclose a server using a rotational selection for selecting which modem to use. However, Craig discloses a modem queue server that writes data into a selected modem queue (page 3, paragraph 44) and the modem queue server using a round robin strategy (page 4, paragraph 48). He, Dunn, Hrastar and Craig are analogous art because they are from the same field of endeavor, network communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of He, Dunn and Hrastar and Craig before him or her, to modify the system to include the round robin modem selection of Craig. The suggestion/motivation for doing so would have been to be able to process data streams with different data formats (page 1, paragraph 9).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cordelia Kane whose telephone number is 571-272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Art Unit 2132

/Benjamin Lanier/
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